CONSOLIDATED INFORMATION TECHNOLOGY SERVICES
TASK ASSIGNMENT (TA)

1. **TITLE:** (B702) CENTRAL BUSINESS AND ADMINISTRATIVE COMPUTING COMPLEX OPERATIONS

TA No:	SLB006-Rev11	
Task Area Monitor:	**Alternate Task Area Monitor:**	
NASA POC:	**Software Control Class:**	Low Control
Type of Task:	Recurring Task	

2. BACKGROUND

The Office of Chief Information Officer (OCIO), Information Management Branch (IMB) provides business and administrative management information services to LaRC. The computing environment consists of a Central Business and Administrative Computing Complex (CBACC) located at the competency center at NASA Marshall. Users connect from their individual workstations via network connections. Business and administrative applications software runs on central mainframes (host based applications) located at Marshall Space flight Center and on distributed computers both in the CBACC and located remotely (distributed applications).

The NASA Automated Data Processing (ADP) Consolidation Center (NACC) located at Marshall Space Flight Center (MSFC) in Huntsville, AL was established in 1995 to centrally integrate, implement and operate Agency-wide Mainframe z/OS computing resources for NASA Centers and Headquarters. Currently the NACC provides computer operations and maintenance for all administrative application processing for LaRC.

The NACC works in coordination with the CBACC Manager to provide IT services to LaRC. Consolidated support for all centrally hosted legacy business systems support is provided by the NACC. The contractor shall be responsible for local applications and functions internal to LaRC's logical partition (LPAR) at the NACC. This is to provide continuity of operations of legacy business applications that reside on the mainframe or that require information from the mainframe.

3. OBJECTIVE

Operate legacy business and management applications in the CABACC in order to obtain data and reports or to provide business solutions for LaRC organizations and personnel. This task shall be in close coordination with the NACC.

4. GENERAL IT SUPPORT SERVICES

Services Specified Through Exhibit A:

The LaRC business and administrative applications software portfolio consists of Agency standard systems (host based), and a number of unique LaRC applications (both host based and distributed) developed and maintained by LaRC. This task defines a deliverable to document a complete list of legacy Business and administrative computing applications and Agency standard systems that are supported.

Requirements specific to this work area include:
Equipment Operations
Routine System Maintenance
Production Input/Output and Scheduling
Supplies
Maintenance of Storage Media Libraries
System Administration
CBACC Database Administration
Configuration Management
Provide Plans for Reprogramming of Langley Applications Off the NDC Mainframe and Associated Reprogramming as Required/Requested
Maintenance of a System Documentation Library
Evaluation of operations and recommendations for improvements to reduce cost and improve service

General IT Support Services Performance Metrics

Performance Standard: The systems to which these services apply are kept up-to-date with minimum disruption in capability due to upgrades.

Performance Metrics:

Exceeds: All notifications of updates or upgrades are acted upon and all approved upgrades are installed on schedule and without disruption; or "meets" and improvements to systems are recommended and adopted.

Meets: All notifications of updates or upgrades are acted upon. All approved upgrades are installed with minor delays and disruptions.

Fails: Any of the requirements of this subsection are not met.

Performance Standard: The security of systems and data that fall under this TA is ensured

Performance Metrics:

Exceeds: "Meets" and there are no unpatched vulnerabilities, unless the vulnerability has been mitigated by other action, accepted by line management and approved by the LaRC IT Security Manager; user accounts are removed by the close of business of the day that the requirement for an account is terminated.

Meets: All baseline IT security requirements for the information category are either met or have a waiver for non-compliance from the LaRC IT Security Manager; the system is up-to-date with security patches or has scheduled the installation of such patches at the completion of a test that precludes immediate installation; user accounts are removed within one week of the termination of the requirement for an account; any IT Security incidents are reported to the LaRC IT Security Manager as soon as possible after they are discovered.

Fails: The system does not comply with the baseline IT security requirements for the information category and does not have a waiver for non-compliance from the LaRC IT Security Manager; the system is not up-to-date with IT security patches; user accounts, for which the requirement was terminated have not been removed after a period of two weeks; the system has an IT security incident that is not reported to the LaRC IT Security Manager.

Performance Standard: All systems to which these services apply are maintained to OEM standards. Upon failure, they are repaired to minimize the disruption of capability. The integrity and security of data is maintained.

Performance Metrics:

Exceeds: "Meets" and: incipient failures are recognized and acted upon; or repairs are accomplished ahead of schedule.

Meets: Equipment failures are identified within 2 hours of occurrence (or beginning of first prime shift following occurrence) and satisfactory repairs are effected on the schedule agreed to by the contractor and line manager before the repair is initiated. Data is restored to status of the last available back-up

Fails: Equipment failures are not identified until later than 2 hours after the beginning of the first prime shift following occurrence. Repairs are not effected on the schedule agreed to by the contractor and line manager.

Performance Standard: Archiving schedules are met and systems are ready to restore databases on short notice.

Performance Metrics:

Exceeds: "Meets" and improvements in recovery procedures are recommended and adopted.

Meets: Archiving schedules are met. Semi-annual disaster recovery tests are held and confirm readiness for disaster recovery.

Fails: Archiving schedules are not met or disaster recovery tests fail.

Performance Standard: The contractor provides customers reasonable notification of service interruptions

Performance Metrics:

Exceeds: The contractor notifies customers of scheduled service interruptions more than 8 business hours prior to interruption.

Meets: The contractor notifies customers of scheduled service interruptions 4-8 business hours prior to interruption.

Fails: The contractor notifies customers of scheduled service interruptions less than 4 business hours prior to interruption.

Performance Standard: Any problems that occur are resolved and corrected. Problem solution progress is tracked and documented.

Performance Metrics:

Exceeds: "Meets" and problems are identified and solutions found and corrected expeditiously

Meets: Troubleshooting rated as satisfactory. Response to problems is within 2 business hours of notification. Trouble reporting system is kept up-to-date and daily follow up of problem resolution is carried out

Fails: Problems are not properly followed up and resolved.

Performance Standard: Required documentation is complete, understandable, and up-to-date.

Performance Metrics:

Exceeds: Documentation is error free, complete, and up-to-date.

Meets: All notifications of updates or upgrades are acted upon. All approved upgrades are installed with minor delays and disruptions.

Fails: Any of the requirements of this subsection are not met.

Performance Standard: Assigned activities are accomplished satisfactorily and within the pre-determined schedule.

Performance Metrics:

Exceeds: All assigned activities are accomplished satisfactorily ahead of the pre-determined schedule.

Meets: Any deficiencies or slippage in one or more activities are offset by improvements or gains in other activities. Assigned activities are accomplished satisfactorily and within the pre-determined schedule.

Fails: Deficiencies or slippage in assigned activities have had a detrimental effect on the objectives of the project.

Performance Standard: Expenditures within plan. Reasonable costs/savings achieved

Performance Metrics:

Exceeds: Expenditures within plan with cost savings achieved.

Meets: Expenditures within plan.

Fails: Expenditures not within plan or reasonable cost/davings.

Performance Standard: Security of databases and instances is ensured.

Performance Metrics:

Exceeds: "Meets" and no security breeches are found or improvements in security procedures are recommended and adopted.

Meets: Weekly audits of logs are held to identify potential security breeches. Users are removed or added with proper access within 8 business hours of request.

Fails: Security breaches occur that could have been prevented by proper contractor oversight.

5. SYSTEM AND APPLICATION DEVELOPMENT SERVICES

None required.

6. WORK-AREA SPECIFIC SERVICES

Work Area Title: CBACC Operations

LaRC Manager: (LaRC CBACC Interface Manager)

Work Area Description: The LaRC business and administrative applications software portfolio consists of Agency standard systems (host based), and a number of unique LaRC applications (both host based and distributed) developed and maintained by LaRC. Requirements specific to this work area include:

- Provide local z/OS support in the CBACC, which is responsible for local applications and functions internal to the LaRC logical partition (LPAR) at the NACC.

- Provide integrated support for the CBACC systems and coordinate work with NACC. Contractor shall operate all hardware and software required for connectivity to and supporting legacy and centralized administrative operations provided at the Competency Center.

- Perform business production input/output including developing production schedules, monitoring execution of application jobs, and routing all print output to the Langley printers for distribution.

- Operate applications and integrated hardware-software systems that have been developed to meet requirements unique to LaRC.

- Maintain a documentation library for each system and application in the CBACC.

- Identify applications that can be migrated to a more cost-effective solution.

- Provide support to migrate or archive retired applications.

Work Area Requirements: Business days: Monday through Friday, except Federal holidays.

CCB OCIO Configuration Control Board

Core Hours: 7:00 a.m. to 5:30 p.m. on business days.

Definitions:
CBACC equipment: The inventory of computer systems and peripheral equipment located in the CBACC and around the field.

CBACC systems software: The inventory of operating systems and related software located in the CBACC.

CBACC Interface Manager: The government employee who acts as coordinator and performance monitor for CBACC operations and acts on behalf of the OCIO Computer Security Officer.

DPI: Data Processing Installation

System owner: The government employee who acts as customer for each system supported under this task.

End user: The government employees and contractors who access the supported systems in order to perform their job functions.

General:

The contractor shall operate all hardware and software required for connectivity to and supporting legacy and centralized administrative operations provided at the CBACC located at the competency center at NASA Marshall Space Flight Center with assistance from personnel located at Building 1268 at NASA Langley Research Center and other locations offsite. The Contractor shall identify in writing changes required to building and Network service through the TAM as they emerge.

The CBACC shall be operational on business days during core hours or completion of the daily production schedule, whichever occurs last. During periodic peak work loads the contractor shall be required to coordinate and support continuing operations with the CBACC up to 24 weekend-days during the year, with 2 weeks notice by the COR.

Information Technology Security (ITS)

The Contractor shall develop, implement, and maintain computer security controls and procedures, as defined in NPG 2810, necessary to prevent unauthorized access to computer systems, facilities, and resources for which the Contractor is responsible. The contractor shall identify, plan for, and recommend to the OCIO CCB configuration changes in order to ensure compliance with the NASA ITS Policy Guide (NPG 2810). Upon approval by the CCB, the Contractor shall implement these changes. The contractor shall perform ITS functions as provided in the Langley Management System (LMS) and documented in the online system at http://lms.larc.nasa.gov. The Contractor shall perform the periodic system documentation reviews as provided under NPG 2810.1.

The Contractor shall provide continuous monitoring of the CBACC systems and applications. Monitoring and reporting shall conform to CP-5549 of the Langley Management System (LMS). The Contractor shall monitor ITS communications channels for notices of security threats and vulnerabilities which affect the CBACC systems and applications.

The Contractor shall monitor and periodically report on the status of its portion of the ITS Program. The Contractor shall report

o Completion of annual security awareness training
o Installation of security patches for commercial software
o Correction of any discrepancies discovered during system vulnerability testing
o IT Security Incident Reports
o Completion of annual review of system documentation for each system

The Contractor shall report ITS incidents and infractions to the cognizant DPI or OCIO Computer Security Officer within one half hour of being discovered during core hours, and within 8 hours on non-core hours.

The Contractor shall participate in quarterly (or periodic if less than quarterly) meetings to

discuss results of vulnerability testing and to identify and propose corrective measures for approval by the OCIO CCB. Upon approval by the CCB, the Contractor shall implement these corrective measures.

The Contractor shall perform risk management for all CBACC systems, including risk analysis and risk reduction planning, and shall propose implementation of risk mitigation actions to the OCIO CCB. Upon approval by the CCB, the Contractor shall implement these corrective measures.

Standard backup and restart procedures for systems and applications supported by this task shall be jointly defined with the CBACC Interface Manager taking into consideration system owner and end-user requirements. These procedures shall be documented by the Contractor and made readily available to system operations personnel.

With respect to the mainframe (NACC) environment, the Contractor shall

o Maintain the z/OS Security Structure (RACF) and provide security administration functions.
o Ensure that Security Software (RACF) is maintained in optimal configuration to ensure security and integrity of the data and update to new versions consistent with the Operating System.
o Act as LaRC z/OS Security software contact for external audits.
o Ensure that the Security System meets standards set by the NACC
o Maintain the currency of Security Databases.
o Analyze z/OS System records for security violations and report the results. (Historically, this is needed less than once per year).
o Maintain Database Security
o Maintain user profiles reflecting correct user link groups
o Process access controls in a timely manner
o Provide CBACC manager with exception reports

Equipment Operations:

General Operations

The Contractor shall operate all on-site CBACC equipment. All notices to end users and system owners regarding changes in operating schedules, CBACC environment, or system availability shall be provided to the CBACC Interface Manager for review and distribution.

The Contractor shall resolve operational, production applications problems independently or initiate resolution requiring participation by the Government. Communicate resolution of problems to all parties involved.

The Contractor shall provide adequate backup and recovery in accordance with the system's Disaster Recovery Plan. The Contractor shall perform the following activities:

Schedule and monitor application database backup on the CBACC servers
Schedule and monitor ADABAS backup through NACC operations
Recommend recovery priorities to the CBACC Manager for approval
Request recovery of data by notifying NACC Operations

Routine System Maintenance

The Contractor shall perform routine preventive and corrective maintenance on the CBACC equipment and systems with minimal changes to configuration. All configuration changes shall be proposed to and approved by the OCIO CCB prior to implementation.

Equipment Maintenance and Upgrade

The Contractor shall maintain the CBACC hardware and power equipment and operate associated system environmental protection equipment considered part of the CBACC. In addition, equipment to be maintained shall include interconnecting signal cables needed for the CBACC. This includes all signal cables that are an integral portion of the equipment and power cables and mating connectors provided with the equipment. All preventive maintenance, remedial maintenance, and hardware upgrades shall be performed using parts and procedures that are at least equal to OEM recommendations.

The contractor shall:

Develop and implement an effective plan to meet a 99% system availability during core hours.
Identify and assess the performance of the equipment system, identify important performance factors, report to the Government on the system's performance, and identify and implement improvements with the CBACC Interface Manager's approval.
Document all systems malfunctions on a systems malfunction report. A system malfunction report contains the description of the problem and its fix, identification of the item on which the malfunction occurred, and pertinent times such as that of notification, arrival, and deferment.
Coordinate hardware changes with the NACC and perform testing of hardware changes of their equipment.
Coordinate, through the CBACC Interface Manager, the following service disruptions:

- Planned NACC outages.
- Planned CBACC power outages.
- Planned network outages.

Provide information and data as requested by the CBACC Interface Manager in response to audits and inspections.

Specific Requirements for z/OS System Operations

The contractor shall act as Point of Contact for z/OS System issues, coordinating scheduling of maintenance periods with users and system owners through the CBACC Manager. Additionally, the contractor shall provide z/OS System Level Application support for the third party systems software (i.e., Software AG¿s ADABAS, RACF, and RDMS), provide routine problem solving, participate in technical discussions with the NACC and CBACC Manager, monitor NACC network activities, and provide performance reports to the Government.

Printer Support

The Contractor no longer provides printer operations as responsibility for the print function has been transferred to another organization effective prior to this task.
Production Input/Output and Scheduling

The Contractor shall schedule all batch input/output processing, perform quality assurance reviews including manual checking of control totals, batch totals, job control language, and other required checklists, and prepare all outputs for distribution, as provided in CBACC operations procedures.

The Contractor shall schedule production runs and systems availability in coordination with the NACC according to Government priorities, sequence requirements, and service-level objectives, as provided by the CBACC Interface Manager.

The Contractor shall provide, administer, and manage the scheduling, submission, execution, monitoring, restart, and control of all application jobs, provide a contact to resolve production problems when jobs do not successfully complete execution, maintain and save all application job streams and programs for previous 3 hours in order to resolve production problems, and issue commands that relate directly to running Center applications, job scheduling, and production control. Computer Operator will be physicaly onsite during the evening shift to ensure appropriate monitoring of the after hours production job schedule.

Metric: Ninety-nine percent (99%) of scheduled production output products shall be delivered to correct recipient locations within 1 work day of their production run.

The Contractor shall perform Production Control Services, including contact with functional users and programming staff, for applications, perform the necessary functions to meet production schedules, including having backup personnel available to complete functions when primary person is absent, maintain Job Control Language for scheduled jobs, provide support for all production applications for Client/Server, participate in all relevant meetings to ascertain impacts on the production schedule, and document established operations procedures updating changes as they become operational in the production environment.

Storage Media Libraries

The Contractor shall manage the storage media libraries for all equipment resident in the on-site CBACC.

System Administration

System administration includes operating system software maintenance and performance measurement and tuning associated with the CBACC systems software located at NASA Langley Research Center. The Contractor shall work closely with NACC when NACC specifies the schedules for upgrading the tightly coupled system application software with Operating Systems software essential to the IEMP Program.

Operating System Software Maintenance

The Contractor shall provide technical support and coordination to ensure orderly system

implementation, integration, and operation of operating system software.

The Contractor shall work closely with and coordinate with the NACC in operating systems software maintenance/upgrades pertaining to the Center-unique requirements prior to any new operating system implementation. If the operating system software releases/upgrades impact application software, the Contractor shall accomplish the associated planning, scheduling, and implementation between the two software maintenance activities.

The Contractor shall formulate, test, and apply fixes to any failing software that is maintained in-house. Operating systems software failure shall be appropriately documented and reported to the NACC's problem tracking and reporting system.

The Contractor shall obtain reference documents from NACC for reference services and maintain the same reference level with NACC to help identify any operating system software problems.

The Contractor shall coordinate with the NACC security controls associated with or affected by operating systems software and security application software maintenance functions.

The Contractor shall periodically assess the need to reorganize data sets on the Direct Access Storage Device (DASD) to minimize DASD fragmentation and balance the effectiveness of data movement. The Contractor shall periodically review the usage of magnetic tapes to release unnecessary saved tapes.

Metric: Initiation of operating systems application software release planning within 5 work days of initial notification or knowledge of requirement for operating system software upgrade, completion of successful implementation not later than negotiated plan and schedule.

Metric: Corrective action initiated within 15 minutes of discovery to resolve core hours production problems involving operating system software.

Performance Measurement and Tuning

The Contractor shall monitor system performance on each of the CBACC operating system and application software components on an ongoing basis. The Contractor shall evaluate the current state of CPU utilization, swap space activity, memory utilization, disk utilization, network response time, disk input/output performance, job queues, remote file sharing, buffer usage, system call activity, file access utilization, interprocess communication, kernel tables, printing queue performance, X-window sever performance, application configuration, and performance characteristics. The Contractor shall conduct analysis of the results of performance monitoring and make proposals to the OCIO CCB for configuration changes to meet service requirements. The Contractor shall implement these changes upon approval by the CCB and document performance issues for each system configuration identity document.

CBACC Database Administration

Provide CBACC database administrative services for mainframe and client/server

development, test, and production environments to maintain the database environments in a fully operational status 7 days a week, 24 hours a day. The Contractor shall physically configure and reconfigure the databases to maximize their usability and set up and implement procedures for backup and restart/recovery of the databases.

The Contractor shall install and upgrade database software and applications, implement and maintain ADABAS/NATURAL security, monitor and optimize database/application performance, and advise application programmers and users as a result of troubleshooting the software and applications.

The Contractor shall install and/or upgrade software development tools to support the application developers in the mainframe, client/server, and web-enabled environments. Maintain all software necessary for application developers to be able to develop and/or maintain database applications in a mainframe, client/server, and a web environment.

The Contractor shall fully document or maintain documentation for the current configuration of the database environment, including site-specific parameters and tools installed and their availability.

Metric: The Contractor shall maintain databases operational at least 98% of the time.

Configuration Management

The Contractor shall provide 1 representative to the OCIO Configuration Control Board (CCB) to represent the Langley CBACC.

The Contractor shall submit to the CBACC Interface Manager requests for approval to changes needed to correct nonconformities.

The Contractor shall analyze proposed changes to the CBACC systems, regardless of the source.

System Documentation Library

The Contractor shall maintain a current complete set of documentation to describe the current configuration of each system and application in the CBACC. This documentation shall consist of a user guide and a system manual.

The Contractor shall develop and maintain hard copy and on-line user documentation. All hardware systems shall have complete configuration identification documentation and commercial manuals located in the CBACC.
All commercial software shall have a complete set of current manuals and original distribution media.

Metric: Replacement commercial hardware and software has library documentation concurrent with replacement of components 99% of the time. Upgraded, replacement, or page changes to documentation shall be installed within 1 week of receipt 98% of the time. Documentation contained within the library is delivered to requester within 2 hours of receipt of request 98% of the time.

Contractor Performance Measurements Metrics

The Contractor shall deliver the following monthly performance reports to the CBACC Manager:
Report Name Performance Requirement
Operating systems up (available) time 99% up time
On-line core hour up (i.e., available) time 99% up time

Production job on-time delivery 95% on schedule

Any deviations during the month Outline any unusual event occurrences during the month

7. Exhibit A

None required.

8. SPECIAL SECURITY REQUIREMENTS

The Contractor shall develop, implement, and maintain computer security controls and procedures, as defined in NPG 2810, necessary to prevent unauthorized access to computer systems, facilities, and resources for which the Contractor is responsible. The contractor shall identify, plan for, and recommend to the OCIO CCB configuration changes in order to ensure compliance with the NASA ITS Policy Guide (NPG 2810). Upon approval by the CCB, the Contractor shall implement these changes. The contractor shall perform ITS functions as provided in the Langley Management System (LMS) and documented in the online system at http://lms.larc.nasa.gov. The Contractor shall perform the periodic system documentation reviews as provided under NPG 2810.1.

The Contractor shall provide continuous monitoring of the CBACC systems and applications. Monitoring and reporting shall conform to CP-5549 of the Langley Management System (LMS). The Contractor shall monitor ITS communications channels for notices of security threats and vulnerabilities which affect the CBACC systems and applications.

9. SOFTWARE ENGINEERING PROCESS REQUIREMENTS

The contractor shall follow the processes for software operation, as specified according to the software control class in ConITS Statement of Work (SOW).

10. JOINT REVIEW SCHEDULE

There will be a monthly joint review of the work of this task at meetings to be scheduled by the TAM. The CBACC Manager and contractor operations manager are required to attend. Technical performance, timeliness, and cost will be discussed.

11. PERIOD OF PERFORMANCE

This TA is effective from 02/01/01 to 04/27/10

12. TECHNICAL PERFORMANCE RATING

In evaluating Technical Performance, quality and timeliness shall be rated as follows:

Quality: 60% Timeliness: 40%

13. RESPONSE REQUIREMENTS

This Task Plan shall address the contractor's specific work plans, associated estimated labor hours, cost and schedule. Estimate is requested within one week of submission of this request.

14. FUNDING INFORMATION

Funding has not been entered for this TA.

15. MILESTONES

None required.

16. DELIVERABLES

Number	Deliverable Item	Deliverable Schedule
1	Projection of operations costs.	Provide necessary projection of reduced operations costs for IEMP functions (if any) on a recurring basis or when requested to TAM and all affected parties, but supply an annual consolidated list NLT 4/1/2020.
2	Inventory of hardware and software	Update documentation of all existing software and hardware located at Langley supporting the Business Computing responsibilities. Provide recommendations for reducing cost by eliminating or replacing items no later than 10/30/2009.
3	Inventory of applications	Update the inventory of applications being supported thru this business computing task. Provide projections for elimination or replacement of any applications no later than 6/30/2009.
4	Advise customer as to reprogramming Langley applications off the NDC mainframe and advise as to products/labor/cost involved as necessary.	Advise TAMs and other necessary parties as to courses of action in regards to moving Langley applications off the NDC mainframe and alternatives for reprogramming affected Langley applications (if applicable) NLT NDC determined deadline or 4/27/2010.

17. FILE ATTACHMENTS

None.